Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2019
(Number and percent)

Characteristic	All fields	Life sciences ^a	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Education	Humanities and arts	Other
All doctorate recipients (number) ^c	55,703	12,781	6,585	4,240	9,071	10,303	4,635	5,054	3,034
Postgraduation status (number) ^d									
Definite postgraduation study	13,462	4,605	2,385	912	2,385	2,170	282	549	174
Definite employment	21,628	3,337	1,753	2,061	3,630	4,149	2,783	2,093	1,822
Seeking employment or study	14,086	3,338	1,857	861	1,864	2,893	1,025	1,692	556
Other ^e	1,685	647	137	64	223	233	127	185	69
Definite postgraduation study (%) ^f									
Postdoc fellowship or research associateship	94.1	93.6	97.5	95.9	90.6	95.3	91.8	93.6	89.7
Other or unknown ^g	5.9	6.4	2.5	4.1	9.4	4.7	8.2	6.4	10.3
Definite employment (%) ^h									
Academe	43.4	38.2	18.8	30.3	53.4	16.7	57.5	73.1	76.6
Government	7.6	9.1	9.2	4.8	13.3	8.3	4.3	1.8	5.4
Industry or business ⁱ	36.5	40.0	67.1	60.5	19.9	69.6	5.7	7.4	12.0
Nonprofit organization	6.1	9.6	2.4	2.4	8.5	3.2	7.1	9.7	3.9
Other or unknown ^j	6.4	3.0	2.6	2.0	5.0	2.3	25.4	8.0	2.2
Primary activity ^k									
R&D	44.9	47.4	65.8	68.4	35.8	71.4	13.1	8.8	40.7
Teaching	30.3	24.0	14.6	21.1	34.4	10.0	42.6	71.1	40.7
Management or administration	10.4	9.5	4.0	1.8	10.0	3.9	32.5	9.1	11.0
Professional services	13.6	17.8	14.5	7.9	19.2	13.7	11.3	10.1	7.5
Other	0.8	1.2	1.1	0.9	0.6	0.9	0.4	0.9	0.1
Secondary activity ^l									
R&D	24.7	24.4	13.8	18.3	30.2	13.1	27.0	39.6	37.8
Teaching	14.0	9.6	2.8	9.6	19.9	6.8	19.2	11.3	37.0
Management or administration	10.5	15.7	12.9	6.1	9.4	12.6	9.8	7.6	5.0
Professional services	6.2	8.0	4.8	4.5	7.7	4.9	8.2	5.3	4.1
Other	0.6	0.6	0.7	0.6	0.8	0.6	0.7	1.1	_
No secondary activity	44.0	41.7	65.0	60.8	32.0	61.9	35.1	35.2	
Activity unknown	4.9	4.9	4.2	4.0	5.1	5.2	4.8	6.1	4.6
Postgraduation location (%) ^m									

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2019
(Number and percent)

Characteristic	All fields	Life sciences ^a	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Education	Humanities and arts	Other ^b
United States ⁿ	89.8	92.3	88.7	87.6	88.4	89.0	93.9	90.0	86.2
New England	8.8	10.9	10.7	7.5	9.1	8.0	4.5	9.6	6.3
Middle Atlantic	12.2	12.5	11.1	13.8	13.7	9.2	11.0	16.7	12.6
East North Central	11.3	10.6	10.9	8.6	10.5	11.3	14.5	13.6	12.6
West North Central	4.8	6.2	3.6	2.8	4.7	3.4	7.5	5.1	5.4
South Atlantic	15.8	17.5	13.0	11.7	18.5	12.6	19.2	14.5	18.8
East South Central	3.7	3.8	2.5	1.8	3.1	2.7	8.1	4.5	4.9
West South Central	7.3	6.4	6.1	4.8	6.7	7.7	11.2	7.8	10.1
Mountain	5.8	5.3	6.9	4.1	5.6	6.9	7.8	4.2	4.1
Pacific and insular	19.3	18.3	23.2	31.8	15.5	26.4	9.4	12.6	10.2
Not in United States	10.1	7.7	11.2	12.3	11.5	10.9	6.1	10.0	13.7
Location unknown	0.1	*	0.1	0.1	0.1	0.2	*	0.0	0.1
Male doctorate recipients (number)	30,151	5,819	4,368	3,144	3,672	7,833	1,422	2,479	1,414
Postgraduation status (number) ^d									
Definite postgraduation study	7,441	2,263	1,629	678	809	1,643	80	266	73
Definite employment	11,831	1,436	1,143	1,538	1,679	3,252	870	1,027	886
Seeking employment or study	7,496	1,405	1,215	629	727	2,133	314	845	228
Other ^e	862	327	82	52	80	172	34	86	29
Definite postgraduation study (%) ^f									
Postdoc fellowship or research associateship	94.6	92.5	97.7	96.0	91.8	95.6	93.8	94.0	89.0
Other or unknown ^g	5.4	7.5	2.3	4.0	8.2	4.4	6.3	6.0	11.0
Definite employment (%) ^h									
Academe	37.1	34.3	16.2	27.0	53.3	15.6	57.6	70.3	76.0
Government	8.1	9.7	8.0	4.6	16.0	8.6	4.8	2.4	4.5
Industry or business ⁱ	45.2	46.0	71.0	64.6	20.4	70.4	5.6	6.6	15.3
Nonprofit organization	4.9	7.1	2.2	2.2	6.9	3.0	5.7	12.7	2.4
Other or unknown ^j	4.7	2.9	2.6	1.6	3.5	2.3	26.2	8.0	_
Primary activity ^k									
R&D	53.4	54.4	68.6	72.1	39.2	72.7	14.1	8.5	45.5
Teaching	25.8	21.5	12.8	17.3	35.2	9.9	40.5	71.5	_

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2019
(Number and percent)

Characteristic	All fields	Life sciences ^a	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Education	Humanities and arts	Other
Management or administration	8.0	7.4	2.8	1.9	9.4	4.0	36.1	8.2	9.8
Professional services	12.2	15.8	14.7	7.9	15.7	12.6	9.1	11.1	6.8
Other	0.7	1.0	1.1	0.7	0.5	0.8	0.2	0.6	0.1
Secondary activity ^l									
R&D	22.3	22.5	13.4	15.5	32.4	13.3	27.8	38.0	35.3
Teaching	12.8	8.3	2.8	9.5	20.1	6.5	21.5	10.9	41.0
Management or administration	10.4	16.7	12.3	5.5	8.6	13.1	10.3	7.1	4.8
Professional services	5.8	7.8	5.0	5.2	7.2	5.2	7.2	5.6	3.7
Other	0.6	0.5	0.6	0.6	0.7	0.5	0.5	0.8	0.1
No secondary activity	48.1	44.2	65.8	63.7	31.0	61.4	32.8	37.6	15.1
Activity unknown	5.1	5.5	4.7	3.9	4.6	5.5	5.2	6.4	4.3
Postgraduation location (%) ^m									
United States ⁿ	88.0	91.2	87.9	87.3	84.1	88.1	91.6	87.3	85.1
New England	8.6	11.0	10.8	7.2	9.1	7.7	4.0	8.6	4.7
Middle Atlantic	11.6	12.3	10.9	13.5	13.6	8.5	10.4	17.2	_
East North Central	10.8	10.1	10.8	8.3	10.0	11.3	13.9	13.5	12.5
West North Central	4.5	6.9	3.4	2.3	3.7	3.6	6.8	5.2	5.9
South Atlantic	14.5	16.3	12.8	11.4	18.4	12.2	17.6	14.7	17.9
East South Central	3.2	3.3	2.4	1.5	2.9	2.7	8.2	4.3	5.4
West South Central	6.9	6.1	6.0	4.8	6.4	7.7	10.7	7.2	10.6
Mountain	5.7	5.0	6.9	4.1	5.0	7.1	8.7	3.8	4.0
Pacific and insular	21.3	19.4	23.1	33.8	14.1	26.5	9.9	11.4	11.2
Not in United States	11.9	8.7	12.0	12.5	15.8	11.8	8.4	12.7	14.8
Location unknown	0.1	*	0.1	0.2	0.1	0.2	0.0	0.0	0.1
Female doctorate recipients (number)	25,542	6,961	2,213	1,095	5,399	2,468	3,213	2,573	1,620
Postgraduation status (number) ^d									
Definite postgraduation study	6,021	2,342	756	234	1,576	527	202	283	101
Definite employment	9,796	1,901	610	523	1,951	897	1,913	1,065	936
Seeking employment or study	6,590	1,933	642	232	1,137	760	711	847	328
Other ^e	823	320	55	12	143	61	93	99	40
Definite postgraduation study (%) ^f									

Table 55
Statistical profile of postgraduation plans of doctorate recipients, by sex and broad field of study: 2019
(Number and percent)

Characteristic	All fields	Life sciences ^a	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Education	Humanities and arts	Other
Postdoc fellowship or research associateship	93.5	94.6	97.1	95.7	89.9	94.3	91.1	93.3	90.1
Other or unknown ^g	6.5	5.4	2.9	4.3	10.1	5.7	8.9	6.7	9.9
Definite employment (%) ^h									
Academe	51.0	41.2	23.6	40.2	53.5	20.5	57.4	75.7	77.1
Government	7.0	8.6	11.3	5.4	11.0	7.0	4.1	1.2	6.2
Industry or business ⁱ	26.0	35.6	59.8	48.6	19.4	66.4	5.7	8.1	8.8
Nonprofit organization	7.7	11.5	2.8	2.9	9.9	3.9	7.7	6.9	5.3
Other or unknown ^j	8.4	3.1	2.5	3.1	6.3	2.1	25.0	8.1	2.6
Primary activity ^k									
R&D	34.7	42.2	60.7	57.3	32.9	66.9	12.7	9.1	36.0
Teaching	35.8	25.8	18.0	32.3	33.7	10.3	43.6	70.8	_
Management or administration	13.3	11.2	6.1	1.4	10.5	3.6	30.9	9.9	
Professional services	15.3	19.4	14.1	7.8	22.3	17.7	12.3	9.1	8.1
Other	0.9	1.4	1.2	1.2	0.6	1.5	0.5	1.2	0.1
Secondary activity ^l									
R&D	27.6	25.8	14.4	26.7	28.3	12.7	26.6	41.1	40.2
Teaching	15.3	10.6	2.7	9.8	19.8	7.7	18.2	11.6	33.
Management or administration	10.5	14.9	14.1	8.0	10.1	11.2	9.6	8.1	5.2
Professional services	6.7	8.2	4.6	2.6	8.2	4.0	8.7	5.1	4.5
Other	0.8	0.6	0.8	0.6	0.9	0.8	0.8	1.3	0.2
No secondary activity	39.1	39.8	63.4	52.3	32.8	63.7	36.1	32.9	16.8
Activity unknown	4.8	4.5	3.3	4.2	5.5	4.1	4.6	5.8	4.8
Postgraduation location (%) ^m									
United States ⁿ	92.0	93.2	90.3	88.4	91.4	92.0	94.9	92.5	87.3
New England	9.1	10.8	10.6	8.6	9.1	9.1	4.7	10.6	7.8
Middle Atlantic	13.0	12.6	11.6	14.5	13.8	11.4	11.2	16.2	13.
East North Central	11.8	11.1	11.3	9.6	10.9	11.2	14.7	13.8	12.7
West North Central	5.2	5.5	3.8	4.0	5.4	2.5	7.8	5.0	4.9
South Atlantic	17.3	18.5	13.3	12.8	18.6	14.0	19.9	14.4	19.
East South Central	4.3	4.3	2.8	2.9	3.3	2.6	8.0	4.6	4.4
West South Central	7.7	6.7	6.2	4.9	7.0	7.9	11.4	8.4	9.6

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(Number and percent)

Characteristic	All fields	Life sciences ^a	Physical sciences and earth sciences	Mathematics and computer sciences	Psychology and social sciences	Engineering	Education	Humanities and arts	Otherb
Mountain	5.8	5.5	7.0	4.2	6.0	6.5	7.3	4.5	4.2
Pacific and insular	17.0	17.3	23.4	26.2	16.5	26.3	9.1	13.6	9.4
Not in United States	7.9	6.7	9.7	11.6	8.5	7.7	5.1	7.5	12.6
Location unknown	0.1	*	0.0	0.0	0.1	0.3	*	0.0	0.1

^{* =} value between 0.00% and 0.05%.

Note(s):

Due to rounding, percentages may not sum to 100.

Source(s):

National Center for Science and Engineering Statistics, Survey of Earned Doctorates.

^a Includes agricultural sciences and natural resources; biological and biomedical sciences; and health sciences.

^b Includes other non-science and engineering fields not shown separately.

^c Includes respondents who did not report sex.

^d Includes only respondents who reported postgraduation status.

e Includes respondents who indicated that they did not plan to work or study, respondents who indicated some other type of postgraduation plans, and respondents who indicated definite plans for other full-time degree program.

f Excludes respondents who indicated plans for other full-time degree program. Percentages based on number of doctorate recipients reporting definite postgraduation plans for study.

^g Other includes respondents who indicated definite postgraduation study plans for traineeship, internship or clinical residency, or other study.

h Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment.

¹ Includes doctorate recipients who indicated self-employment.

^j Other is mainly composed of elementary and secondary schools.

k Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and primary work activity.

¹ Percentages based on number of doctorate recipients reporting definite postgraduation plans for employment and secondary work activity.

^m Percentages based on number of doctorate recipients reporting definite postgraduation plans and type of plans.

ⁿ Includes cases with an unknown U.S. region of employment after doctorate; see technical notes for states or territories included in regions.